



<u>IN THE UNITED STATES PATENT AND TRADEMARK OFFICE</u>

Inventors:

John C. Harvey and James W.

Cuddihy

Serial No.:

08/447,496

Filing Date: May 23, 1995

For:

Signal Processing Apparatus and

Methods

Group Art Unit: 2602/348

Examiner:

Assistant Commissioner of Patents Washington D.C. 20231

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56(a) and in conformance with the procedures of 37 C.F.R. §§ 1.97-98 and M.P.E.P. § 609, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form PTO-1449.

The above-referenced application claims priority under 35 U.S.C. § 120 of the following applications:

Serial No.	<u>Filing Date</u>	Patent No.
08/113,329	August 30, 1993	Pending
08/056,501	May 3,1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825
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Applicants believe that all references cited on the attached PTO 1449 form were cited by or submitted to the PTO in one or more of the cases cited above or in U.S. Patent Application Serial No. 06/829,531, filed February 15, 1986 now U.S. Patent No. 4,704,725 and/or U.S. Patent Application Serial No. 06/317,510, filed November 3, 1981 now U.S. Patent No. 4,694,490. Therefore, no copies of the listed references are provided herewith. It is respectfully requested that the information above be expressly considered during the prosecution of this Application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

CERTIFICATION AND/OR FEE

Since this IDS is being filed pursuant to 37 C.F.R § 1.97(b) before the later of three months after the filing date of the above-referenced application or the date of receipt of the first Office Action on the merits, no certification or fee is required.

Respectfully submitted,

Thomas J. Scott, Jr. (Reg. No. 27,836)

Dated: December 15, 1995

HOWREY & SIMON 1299 Pennsylvania, N.W. Washington, D.C. 20004-2402 (202) 783-0800 (telephone) (202) 383-6610 (telcopier)

08447496 - GAU: 2456

Sheet 1 of 19

PTO 1449 INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496
	Applicants John C. Harvey and James W. Cuddi	
Title: Signal Processing Apparatus	Filing Date:	Group:
and Method	May 23, 1995	2602/348

U.S. Patent Documents

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	2,511,085	June 13, 1950	Smith	179/1	
	2,573,349	Oct. 30, 1951	Miller et al.	177/353	
	2,769,023	Oct. 30, 1956	Loew et al.	178/5.1	
	2,788,387	Apr. 9, 1957	Druz	178/5.1	
	2,864,885	Dec. 16, 1958	Morris	178/5.1	
	2,866,962	Dec. 30, 1958	Ellet	340/147	
	3,016,091	Jan. 9, 1962	Daniele	162/391	
	3,071,642	Jan. 1, 1963	Mountjoy et al.	178/5.1	
	3,213,201	Oct. 19, 1965	Flood et al.	1 7 9/15	
	3,238,297	Mar. 1, 1966	Pawley et al.	178/22	
	3,363,250	Jan. 9, 1968	Jacobson	343/225	
	3,493,674	Feb., 1970	Houghton	178/5.6	
	3,531,586	Sept. 29, 1970	Bass et al.	178/6	
	3,536,833	Oct. 27, 1970	Guanella	178/22	
	3,569,937	Mar. 9, 1971	Hoetter	340/171	
	3,573,747	Apr. 6, 1971	Adams et al.	340/172:5-	
	3,584,142	June 8, 1971	Schoeffler	178/6.8	
	3,601,528	Aug. 24, 1971	McVoy	178/5.1	
	3,609,697	Sept. 28, 1971	Blevins et al.	340/172.5	
	3,657,699	Apr. 18, 1972	Rocher et al.	340/146.1	

EXAMINER	DATE CONSIDERED
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08447496 - GAU: 2456

Sheet 2 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496
	Applicants John C. Harvey and James W. Cuddihy	
Title: Signal Processing Apparatus and Method	Atus Filing Date: Group: May 23, 1995 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	3,659,046	Apr. 25, 1972	Angeleri et al.	178/22	
	3,668,307	June 6, 1972	Face et al.	178/5.6	
	3,684,823	Aug. 15, 1972	McVoy	178/5.1	
	3,693,090	Sept. 19, 1972	Gabriel	325/308	
	3,703,684	Nov. 21 1972	McVoy	325/31	
	3,725,672	Apr. 3, 1973	Reuter	307/208	
	3,729,581	Apr. 24, 1973	Anderson	178/6.8	
	3,731,197	May 1, 1973	Clark	325/32	
	3,733,430	May 15, 1973	Thompson et al.	178/5.1	
	3,736,369	May 29, 1973	Vogelman et al.	178/5.1	_
	3,749,845	July 31, 1973	Fraser	179/15	
	3,752,908	Aug. 14, 1973	Boenke et al.	178/5.6	
	3,757,225	Sep. 4, 1973	Ukicki	325/308	
	3,773,977	Nov. 20, 1973	Guanella	179/1.5	
	3,777,053	Dec. 4, 1973	Wittig et al.	178/5.1	
	3,789,137	Jan. 29, 1974	Newell	178/6.6	
-	3,790,700	Feb. 5, 1974	Callais et al.	178/5.1	
	3,798,359	Mar. 19, 1974	Feistel	178/22	
	3,798,610	Mar. 19, 1974	Bliss et al.	340/172.5	
	3,803,491	Apr. 9, 1974	Osborn	325/53	

EXAMINER	DATE CONSIDERED
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08447496 - GAU: 2456

Sheet 3 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496
	Applicants John C. Harvey and James W. Cuddihy	
Title: Signal Processing Apparatus and Method	Filing Date: Group: 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	3,806,814	Apr. 23, 1974	Forbes	325/309	
	3,819,852	June 25, 1974	Wolf	178/5.6	
	3,824,332	July 16, 1974	Horowitz	178/5.1	
	3,824,467	July 16, 1974	French	325/32	
	3,825,893	July 23, 1974	Bossen et al.	340/146.1	
	3,833,757	Sept. 3, 1974	Kirk, Jr. et al.	178/5.6	
	3,835,387	Sep. 10, 1974	Rookes et al.	325/55	
	3,842,196	Oct. 15, 1974	Louglin	358/12	
	3,845,391	Oct. 29, 1974	Crosby	325/64	
	3,848,193	Nov. 12, 1974	Martin et al.	325/53	
	3,882,392	May 6, 1975	Harney	325/53	
	3,885,089	May 20, 1975	Callais et al.	178/5.1	
	3,886,302	May 27, 1975	Kosco	178/5.1	
	3,886,454	May 27, 1975	Oakley et al.	325/52	
	3,890,461	June 17, 1975	Vogelman et al.	178/5.1	
	3,891,792	June 24, 1975	Kimura	178/5.8R	3333
	3,893,031	July 1, 1975	Majeau et al.	325/32	
	3,894,176	July 8, 1975	Mellon	178/5.1	
	3,899,633	Aug. 12, 1975	Sorenson et al.	178/5.1	
	3,911,216	Oct. 7, 1975	Bartek et al.	178/22	

EXAMINER	DATE CONSIDERED
	1

08447496 - GAU: 2456

Sheet 4 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496
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Title: Signal Processing Apparatus and Method	Filing Date: Group: 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	3,914,534	Oct. 21, 1975	Forbes	178/5.1	
	3,916,091	Oct. 28, 1975	Kirk, Jr. et al.	178/5.1	
	3,919,462	Nov. 11, 1975	Hartung et al.	178/5.1	
	3,921,151	Nov. 18, 1975	Guanella	340/172.5	
	3,924,187	Dec. 2, 1975	Dormans	325/52	
	3,934,079	Jan. 20, 1976	Barnhart	178/5.1	
	3,936,593	Feb. 3, 1976	Aaronson et al.	178/5.1	
	3,936,594	Feb. 3, 1976	Schubin et al.	178/5.1	
	3,936,595	Feb. 3, 1976	Yanagimachi et al.	178/5.6	
	3,943,447	Mar. 9, 1976	Shomo, III	325/308	
:	3,947,882	Mar. 30, 1976	Lightner	360/92	
	3,949,313	Apr. 6 1976	Tamada et al.	329/106	
	3,956,615	May 11, 1976	Anderson et al.	235/61.7B	
	3,970,790	July 20, 1976	Guanella	179/1.5S	
	3,975,583	Aug. 17, 1976	Meadows	175/5.6	
	3,978,449	Aug. 31, 1976	Sanders et al.	340/146.1	
	3,987,398	Oct. 19, 1976	Fung	325/309	
	3,988,528	Oct. 26, 1976	Yanagimachi et al.	178/5.6	
	3,997,718	Dec. 14, 1976	Ricketts et al.	178/6.8	
	4,024,574	May 17, 1977	Nieson	358/117	

EXAMINER	 DATE CONSIDERED

08447496 - GAU: 2456

Sheet 5 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496	
	Applicants John C. Harvey and James W. Cuddihy		
Title: Signal Processing Apparatus and Method	Filing Date: May 23, 1995	Group: 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,025,851	May 24, 1977	Hazelwood et al.	325/31	
	4,025,947	May 24, 1977	Michael	358/86	
	4,025,948	May 24, 1977	Loshin	358/122	
	4,031,548	June 21, 1977	Kato et al.	358/188	
	4,048,619	Sept. 13, 1977	Forman, Jr. et al.	340/154	
	4,049,906	Sept. 20, 1977	Hafner et al.	178/2C	
	4,054,911	Oct. 18, 1977	Fletcher et al.	358/141	
	4,058,830	Nov. 15, 1977	Gulnet et al.	358/86	
	4,068,264	Jan. 10, 1978	Pires	358/122	
	4,079,419	Mar. 14, 1978	Siegle et al.	358/193	
	4,081,612	Mar. 28, 1978	Hafner	179/15BA	
	4,081,753	Mar. 28, 1978	Miller	325/396	
	4,081,831	Mar. 28, 1978	Tang et al.	358/114	
	4,091,417	May 23, 1978	Nieson	358/117	
	4,104,486	Aug. 1, 1978	Martin et al.	179/2	
	4,107,735	Aug. 15, 1978	Frohbach	358/84	
	4,112,464	Sept. 5, 1978	Gulf et al.	358/122	
	4,115,662	Sept. 19, 1978	Gulnet et al.	179/15BV	
_	4,115,807	Sept 19, 1978	Pires	358/122	
	4,120,030	Oct. 10, 1978	Johnstine	364/200	

EXAMINER		DATE CONSIDERED
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08447496 - GAU: 2456

Sheet 6 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496	
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Title: Signal Processing Apparatus and Method	Filing Date: May 23, 1995	Group: 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,130,833	Dec. 19, 1978	Choenet	358/122	
	4,131,881	Dec. 26, 1978	Robinson	340/167R	
	4,138,726	Feb. 6, 1979	Girault et al.	364/521	
	4,160,120	July 3, 1979	Barnes et al.	178/22	
	4,161,751	July 17, 1979	Ost	358/114	
	4,163,254	July 31, 1979	Block et al.	358/122	
	4,163,255	July 31, 1979	Pires	358/122	
	4,168,396	Sept. 18, 1979	Best	178/22	
	4,170,782	Oct. 9, 1979	Miller	358/84	
	4,171,513	Oct. 16, 1979	Otey et al.	325/32	
	4,172,213	Oct. 23, 1979	Barnes et al.	178/22	
	4,186,413	Jan. 29, 1980	Mortimer	358/146	
	4,196,310	Apr. 1, 1980	Forman et al.	178/22	
	4,200,770	Apr. 29, 1980	Hellman et al.	178/22	
	4,200,913	Apr. 29, 1980	Kuhar et al.	364/900	
	4,205,343	May 27, 1980	Barrett	358/147	
	4,213,124	July 15, 1980	Barda et al.	340/706	
	4,215,366	July 29, 1980	Davidson	358/124	
	4,215,370	July 29, 1980	Kirk, Jr.	358/146	
	4,225,884	Sept. 30, 1980	Block et al.	358/122	

EXAMINER	DATE CONSIDERED

08447496 - GAU: 2456

Sheet 7 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496	
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Title: Signal Processing Apparatus and Method	Filing Date: Group: 2602/348		

EXAMINER INTTIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,225,967	Sep. 30, 1980	Miwa et al.	455/68	
	4,230,990	Oct. 28, 1980	Lert, Jr et al.	455/67	
	4,232,193	Nov. 4, 1980	Gerard	179/1.5R	
	4,236,217	Nov. 25, 1980	Kennedy	364/483	
	4,237,484	Dec. 2, 1980	Brown et al.	358/142	
	4,245,24 5	Jan. 13, 1981	Matsumoto et al.	358/122	
	4,247,106	Jan. 27, 1981	Jeffers et al.	273/85G	
	4,250,524	Feb. 10, 1981	Tomizawa	358/122	
	4,253,114	Feb. 24, 1981	Tang et al.	358/114	
	4,253,157	Feb. 24, 1981	Kirschner et al.	364/900	
	4,262,329	Apr. 14, 1981	Bright et al.	364/200	-
	4,264,924	Apr. 28, 1981	Freeman	358/86	
	4,264,925	Apr. 28, 1981	Freeman et al.	358/86	
	4,266,243	May 5, 1981	Shutterly	358/121	
	4,275,411	June 23, 1981	Lippel	358/13	
	4,283,602	Aug. 11, 1981	Adams et al.	179/1.5R	
	4,284,976	Aug. 18, 1981	Gable et al.	340/147	
	4,286,281	Aug. 25 1981	Suzuki	358/4	
	4,287,592	Sept. 1, 1981	Paulish et al.	370/88	
	4,288,809	Sept. 8, 1981	Yabe	358/12	

EXAMINER		DATE CONSIDERED	

08447496 - GAU: 2456

Sheet 8 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496	
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Title: Signal Processing Apparatus and Method	Filing Date: Group: 2602/348		

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,290,141	Sept. 15, 1981	Anderson et al.	455/2	
	4,290,142	Sept. 15, 1981	Schnee et al.	455/3	
	4,292,650	Sept. 29, 1981	Henderickson	358/173	
	4,295,223	Oct. 13, 1981	Shutterly	455/72	
	4,302,771	Nov. 24, 1981	Gargini	358/86	July 23, 1980
	4,304,990	Dec. 8, 1981	Atalla	235/380	Feb. 4, 1980
	4,305,101	Dec. 8, 1981	Yarbrough et al.	360/69	Apr. 16, 1979
	4,305,131	Dec. 8, 1981	Best	364/521	
	4,305,131	Dec. 8, 1981	Best	364/521	Mar. 31, 1980
	4,306,289	Dec. 15, 1981	Lumley	364/200	Feb. 4, 1980
	4,306,305	Dec. 15, 1981	Doi et al.	371/38	Oct. 19, 1979
	4,307,446	Dec. 22, 1981	Barton et al.	364/200	May 2, 1979
	4,310,854	Jan. 12, 1982	Baer	358/143	Aug. 29, 1979
	4,312,016	Jan. 19, 1982	Glaab et al.	358/188	Feb. 2, 1979
	4,313,132	Jan. 26, 1982	Doles et al.	358/114	Oct. 31, 1979
··· - ·· - · · - · ·	4,314,367	Feb. 2, 1982	Bakka et al.	-3 7 0/60-	Jan. 17, 1980
	4,316,055	Feb. 16, 1982	Feistel	178/22.06	Dec. 30, 1976
	4,316,245	Feb. 16, 1982	Luu et al.	364/200	Dec. 7, 1978
	4,318,125	Mar. 2, 1982	Shutterly	358/121	Apr. 25, 1979
	4,319,079	Mar. 9, 1982	Best	178/22.09	Jan. 17, 1980

EXAMINER	DATE CONSIDERED
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Sheet 9 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121 Serial No. 08/447,496	
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Title: Signal Processing Apparatus and Method	Filing Date: Group: 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,322,745	Mar. 30, 1982	Saeki et al.	358/123	Mar. 21, 1980
	4,323,921	Apr. 6, 1982	Guillou	358/114	Jan. 23, 1980
	4,323,922	Apr. 6, 1982	den Toonder et al.	358/117	Dec. 17, 1979
	4,325,078	Apr. 13, 1982	Seatom et al.	358/117	Nov. 20, 1979
	4,329,675	May 11, 1982	Van Hulle	358/86	Sep. 23, 1980
	4,329,684	May 11, 1982	Monteath et al.	340/707	Jan. 15, 1980
	4,331,973	May 25, 1982	Eskin et al.	358/84	Oct. 20, 1980
	4,331,974	May 25, 1982	Cogswell et al.	358/86	Oct. 21, 1980
	4,332,980	June 1, 1982	Reynolds et al.	179/2A	May 30, 1980
	4,333,152	June 1, 1982	Best	364,521	June 13, 1980
	4,334,242	June 8, 1982	Mangold	358/127	Jan. 14, 1980
	4,336,553	June 22, 1982	den Toonder et al.	358/120	May 14, 1980
	4,336,559	June 22, 1982	Koyama et al.	360/73	Nov. 9, 1978
	4,337,480	June 29, 1982	Bourassin et al.	358/93	Feb. 8, 1990
	4,337,483	June 29, 1982	Guillou	358/114	Jan. 31, 1980
	4,338,628	July 6, 1982	Payne et al.	358/120	Dec. 19, 1979
	4,339,798	July 13, 1982	Hedges et al.	364/412	Dec. 17, 1979
	4,340,903	July 20, 1982	Tamura	358/10	Aug. 6, 1980
	4,347,498	Aug. 31, 1982	Lee et al.	340/825.02	Nov. 21, 1979
	4,347,532	Aug. 31, 1982	Korver	358/183	Oct. 14, 1980

	EXAMINER	DATE CONSIDERED
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08447496 - GAU: 2456

Sheet 10 of 19

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Title: Signal Processing Apparatus and Method	Filing Date: Group: 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,353,088	Oct. 5, 1982	den Toonder et al.	358/120	May 14, 1980
	4,354,201	Oct. 12, 1982	Sechet et al.	358/122	June 11, 1980
	4,355,372	Oct. 19, 1982	Johnson et al.	364/900	Dec. 24, 1980
	4,360,827	Nov. 23, 1982	Braun	358/85	June 2, 1981
	4,361,730	Nov. 30, 1982	Barber et al.	179/5 R	Aug. 29, 1980
	4,361,877	Nov. 30, 1982	Dyer et al.	364/900	Feb. 5, 1980
	4,364,081	Dec. 14, 1982	Hashimoto et al.	358/13	Apr. 16, 1981
	4,365,110	Dec. 21, 1982	Lee et al.	178/22.10	June 5, 1979
	4,367,548	Jan. 4, 1983	Cotten, Jr. et al.	370/3	Apr. 10, 1980
	4,367,557	Jan 4, 1983	Stern et al.	455/4	May 25, 1979
	4,375,579	Mar. 1, 1983	Davida et al.	178/22.10	Jan. 30, 1980
	4,375,651	Mar. 1, 1983	Templin et al.	358/191.1	July 27, 1981
	4,379,205	Apr. 5, 1983	Wyner	178/22.10	June 22, 1979
	4,381,522	Apr. 26, 1983	Lambert	358/86	Dec. 1, 1980
	4,383,257	May 10, 1983	Giallanza et al.	340/825.47	Dec. 12, 1980
	4,388,643	June 14, 1983	Aminetzah	358/123-	Apr. 6, 1981
	4,388,645	June 14, 1983	Cox et al.	358/147	Apr. 13, 1981
	4,389,671	June 21, 1983	Posner et al.	358/124	Sept. 29, 1980
	4,390,898	June 28, 1983	Bond et al.	358/119	Mar. 23, 1981
	4,390,901	June 28, 1983	Keiser	358/147	Oct. 16, 1980

EXAMINER	DATE CONSIDERED

08447496 - GAU: 2456

Sheet 11 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121 Serial No. 08/447,496	
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Title: Signal Processing Apparatus and Method	Filing Date: Group: 2602/348	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,390,904	June 28, 1983	Johnston et al.	358/335	Sep. 20, 1979
	4,394,687	July 19, 1983	Hutt et al.	358/147	Apr. 30, 1980
	4,394,691	July 19, 1983	Amano et al.	358/194.1	July 30, 1981
	4,394,762	July 19, 1983	Nabeshima	371/38	Jan. 6, 1981
	4,395,757	July 26, 1983	Bienvenu et al.	364/200	Apr. 14, 1981
	4,396,947	Aug. 2, 1983	Cheung	358/124	Mar. 26, 1980
	4,398,216	Aug. 9, 1983	Field et al.	358/121	Sept. 19, 1980
	4,400,587	Aug. 23, 1983	Taylor et al.	179/27D	Aug. 25, 1981
	4,404,589	Sept. 13, 1983	Wright, Jr.	358/86	Oct. 21, 1980
	4,405,942	Sept. 20, 1983	Block et al.	358/119	Mar. 3, 1982***
	4,410,917	Oct. 18, 1983	Newdoll et al.	360/15	Sept. 14, 1981
	4,413,339	Nov. 1, 1983	Riggle et al.	371/38	June 24, 1981
	4,422,105	Dec. 20, 1983	Rodesch et al.	358/903	Sep. 30, 1980
	4,424,532	Jan. 3, 1984	den Toonder et al.	358/120	May 9, 1983***
	4,425,581	Jan. 10, 1984	Scweppe et al.	358/148	Apr. 17, 1981
	4,430,731	Feb. 7, 1984	Gimple et al.	370/30	Apr. 29; 1981
	4,433,207	Feb. 21, 1984	Best	178/22.09	Sept. 10, 1981
	4,434,323	Feb. 28, 1984	Levine et al.	178/22.17	June 29, 1981
	4,434,436	Feb. 28, 1984	Kleykamp et al.	358/118	July 13, 1981
	4,434,464	Feb. 28, 1984	Suzuki et al.	364/200	Mar. 31, 1981

EXAMINER	DATE CONSIDERED
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08447496 - GAU: 2456

Sheet 12 of 19

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Title: Signal Processing Apparatus and Method	Filing Date: May 23, 1995	Group: 2602/348

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,446,519	May 1, 1984	Thomas	364/200	May 26, 1981
	4,449,247	May 15, 1984	Waschka, Jr.	4 55/9	Jul. 30, 1980
	4,451,701	May 29, 1984	Bendig	179/2 TV	Oct. 11, 1983***
	4,467,139	Aug. 21, 1984	Mollier	178/22.08	Mar. 12, 1981
	4,467,356	Aug. 21, 1984	МсСоу	358/146	Sept. 24, 1981
	4,471,163	Sept. 11, 1984	Donald et al.	178/22.08	Oct. 5, 1981
	4,471,164	Sept. 11, 1984	Henry	178/22.11	Oct. 13, 1981
	4,475,123	Oct. 2, 1984	Dumbauld et al.	358/114	Apr. 2, 1981
	4,488,179	Dec. 11, 1984	Krüger et al.	358/181	Sept. 23, 1981
	4,491,983	Jan. 1, 1985	Pinnow et al.	455/612	Apr. 29, 1982***
	4,513,174	Apr. 23, 1985	Herman	178/22.08	Mar. 19, 1981
	4,528,588	July 9, 1985	Löfberg	358/122	Sept. 25, 1981
	4,528,589	July 9, 1985	Block et al	358/122	Feb. 1, 1984***
	4,536,791	Aug. 20, 1985	Campbell et al.	358/122	Mar. 31, 1981
	4,593,353	June 3, 1986	Pickholtz	364/200	Oct. 26, 1981
	4,598,288	July 1, 1986	Yarbrough et al.	340/825:34	-Dec.20,-1983***
	4,689,661	Aug. 25, 1987	Barbieri et al.	358/12	June 22, 1981
	4,752,834	June 21, 1988	Koombes	358/335	Aug. 31, 1981
	4,862,268	Aug. 29, 1989	Campbell et al.	358/141	Apr. 18, 1985***
	Re. 31,735	Nov. 13, 1984	Davidson	358/124	July 26, 1982***

EXAMINER	DATE CONSIDERED

08447496 - GAU: 2456

Sheet 13 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496
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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATIO	ATION
					YES	NO
	WO 81/02961	Oct. 15, 1981	PCT Application	H04N 7/16, 7/04	n/a	
	1 554 411	Oct. 17, 1979	Great Britain	Н04ь 3/54		х
	2 034 995	June 11, 1980	Great Britain	H03J 7/18, 5/00		Х
	23 38 380	Feb. 13, 1975	Germany		abstract	Х
	29 18 846	Nov. 13, 1980	Germany	F26B 12/02	х	
•	56-47179	Apr. 28, 1981	Japan		х	
-						

OTHER DOCUMENTS

EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.
James, A., "ORACLE - Broadcasting the Written Word," <u>Wireless Word</u> , July 1975. Carne, E. Bryan, "The Wired Household," <u>IEEE-Spectrum</u> . October 1979, p. 61-66.	
Edwardson, S.M., "CEEFAX: A Proposed New Broadcasting Service," <u>Journal of the SMPTE</u> , January 1974, p. 14. J. Chiddix, "Automated Videotape Delay of Satellite Transmissions," <u>Satellite Communications Management</u> 1978 (reprint - 2 pages).	

EXAMINER	DATE CONSIDERED	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		

^{* -} If pertinent

^{*** -} Claims priority from parent application filed prior to Nov. 3, 1981

08447496 - GAU: 2456

Sheet 14 of 19

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No. 5634.121	Serial No. 08/447,496
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EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.
	J. Chiddix, "Tape Speed Errors in Line-Locked Videocassette Machines For CATV Applications," <u>TVC</u> , November 1977 (reprint - 2 pages).
	CRC Electronics, Inc. Product Description, "Model TD-100 - Time Delay Videotape Controller," 2 pages.
	CRC Electronics, Inc., NET PRICE LIST - March 1, 1980 (TD-100 Time Delay Videotape Controller), 1 page.
	CRC Electronics, Inc. Product Description, "Model P-1000 Videocassette Programmer," 4 pages.
	CRC Electronics, Inc., NET PRICE LIST - July 31, 1981 (P-1000 Video Machine Programmer), 1 page.
	Tunmann, E.O. et al. (Tele-Engineering Corp.), "Microprocessor For CATV Systems," <u>Cable 78 - Technical Papers</u> , National Cable Television Association 27th Annual Convention, New Orleans, LA, April 30-May 3, 1978 (" <u>Cable 78</u> "), pp. 70-75.
Vega, Richard L. (Telecommunications Systems, Inc.), "From Satellite to Earth Station to Studio to S-T Transmitter To The Home; Pay Television Comes To Anchorage, Alaska," <u>Cable 78</u> , pp. 76-80.	
Wright, James B. et al. (Rockford Cablevision, Inc.), "The Rockford Two-Way Cable Project: Existing Technology," <u>Cable 78</u> , pp. 20-28.	
Fannetti, John D. et al. (City of Syracuse), "The Urban Market: Paving the Way for Two-Way Telecommunications," Cable 78, pp. 29-33.	
	Schnee Rolf M. et al. (Heinrich-Hertz-Institut Berlin (West)), "Technical Aspects of Two-Way CATV Systems in Germany," Cable 78, pp. 34-41.
-	Dickinson, Robert V.C. (E-Com Corporation), "A Versatile, Low Cost System for Implementing CATV Auxiliary Services," Visions '79 - Technical Papers, National Cable Television Association 28th Annual Convention, Las Vegas, NV, May 20-23, 1979, ("Visions—79"), pp. 65-72.
	Evans, William E. et al. (Manitoba Telephone System), "An Intercity Coaxial Cable Electronic Highway," Visions '79, pp. 73-79.
	Schrock, Clifford B. (C.B. Schrock and Associates, Inc.), "Pay Per View, Security, and Energy Controls Via Cable: The Rippling River Project," Visions '79, pp. 80-85.
	Southworth, Glen (Colorado Video, Inc.), "Narrow-Band Video: The UPI 'Newstime' Technology," Visions '79, pp. 86-88.

EXAMINER	DATE CONSIDERED	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		

08447496 - GAU: 2456

Sheet 15 of 19

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EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.	
	Daly IV, Raymond E. (Computer Cablevision, Inc.), "Potential Use of Microcomputers - The Threats to Technical Personnel, Manufacturers And Owners," <u>Visions '79</u> , pp. 124-26.	
	Grabenstein, James B. (Potomac Valley Television Co., Inc.), "System Design and Operation with 'Basic'," Visions '79 (Appendix B), p. 127.	
	Amell, Richard L. (Cox Cable Communications, Inc.), "Computer-Aided CATV System Design," Visions '79, pp. 128-33.	
	Yoshino, Hirokazu et al. (Matsushita Electric Industrial Co., Ltd.), "Multi-Information System Using Fiber Optics," <u>Visions '79</u> , pp. 134-137.	
	Albright, Thomas G. (Printer Terminal Communications Corporation), "Cable Service: A Data Distribution Link," Visions of the 80's - Technical Papers, National Cable Television Association 29th Annual Convention, Dallas, TX, May 18-21, 1980 ("Visions of the 80's"), pp. 30-34.	
	Blineau, Joseph J. (Centre Commun d'Études de Télévision et Télécommunications), "Measuring Methods and Equipments for Data Packet Broadcasting," <u>Visions of the 80's</u> , pp. 35-39.	
Katz, Harold W. (Interactive Systems/3M), "Status Report on EIA Broadband Modem Standards, 80's, pp. 40-44.		
	Lopinto, John J. (Home Box Office), "Considerations for Implementing Teletext in the Cable System," Visions of the 80's, pp. 45-48.	
O'Brien, Jr., Thomas E. (General Instrument Corporation), "System Design Criteria of Addressabl Optimized for the CATV Operator," <u>Visions of the 80's</u> , pp. 89-91. Ost, Clarence S. et al. (Electronic Mechanical Products Co.), "High-Security Cable Television Acces Visions of the 80's, pp. 92-94.		
		Bacon, John C. (Scientific-Atlanta, Inc.), "Is Scrambling the Only Way?," Visions of the 80's, pp. 95-98.
	Davis, Allen (Home Box Office), "Satellite Security," Visions of the 80's, pp. 99-100.	
	Mannino, Joseph A. (Applied Date Research, Inc.), "Computer Applications in Cable Television," <u>Visions of the 80's</u> , pp. 116-17.	
	Beck, Ann et al. (Manhattan Cable TV), "An Automated Programming Control System for Cable TV," Visions of the 80's, pp. 122-27.	

EXAMINER	DATE CONSIDERED	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		

08447496 - GAU: 2456

Sheet 16 of 19

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EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.
	Schloss, Robert E. et al. (Omega Communications, Inc.), "Controlling Cable TV Head Ends and Generating Messages by Means of a Micro Computer," <u>Visions of the 80's</u> , pp. 136-38.
	Eissler, Charles O. (Oak Communications, Inc.), "Addressable Control," <u>Cable: '81 The Future of Communications - Technical Papers</u> , National Cable Television Association 30th Annual Convention, Los Angeles, CA, May 29-June 1, 1981 (" <u>Cable: '81</u> "), pp. 29-33.
	Schoeneberger, Carl F. (TOCOM, Inc.), "Addressable Terminal Control Using the Vertical Interval," <u>Cable: '81, pp.</u> 34-40.
	Stern, Joseph L. (Stern Telecommunications Corporation), "Addressable Taps," Cable: '81, p. 41.
	Brown, Larry C. (Pioneer Communications of America), "Addressable Control - A Big First Step Toward the Marriage of Computer, Cable, and Consumer," <u>Cable: '81</u> , pp. 42-46.
Grabowski, Ralph E. (VISIONtec), "The Link Between the Computer and Television," Cable: '81, pp.	
	Ciciora, Ph.D., W.S. (Zenith Radio Corporation), "VIRTEXT & VIRDATA: Adventures in Vertical Interval Signaling," <u>Cable: '81</u> , pp. 101-04.
	Gilbert, Bill et al. (TEXSCAN Corporation), "Automatic Status Monitoring for a CATV Plant," <u>Cable: '81</u> , pp. 124-28.
	Ciciora, Walter et al., "An Introduction to Teletext and Viewdata with Comments on Compatibility," <u>IEEE Transactions on Consumer Electronics</u> , Vol. CE-25, No. 3, July 1979 (" <u>Consumer Electronics</u> "), pp. 235-45.
	Tanton, N.E. "UK Teletext - Evolution And Potential," Consumer Electronics, pp. 246-50.
	Bright, Roy D., "Prestel - The World's First Public Viewdata Service," Consumer Electronics, pp. 251-55.
	Bown, H.G. et al., "Telidon: A New Approach to Videotex System Design," Consumer Electronics, pp. 256-68.
	Chitnis, A.M. et al., "Videotex Services: Network and Terminal Alternatives," Consumer Electronics, pp. 269-78.
	Hedger, J. "Telesoftware: Home Computing Via Broadcast Teletext," Consumer Electronics, pp. 279-87.
	Crowther, G.O., "Teletext and Viewdata Systems and Their Possible Extension to Europe and USA," Consumer

EXAMINER	DATE CONSIDERED		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

08447496 - GAU: 2456

Sheet 17 of 19

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EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.	
	Electronics, pp. 288-94.	
	Gross, William S., "Info-Text, Newspaper of the Future," <u>Consumer Electronics</u> , pp. 295-97.	
	Robinson, Gary et al., "'Touch-Tone' Teletext - A Combined Teletext-Viewdata System," Consumer Electronics, pp. 298-303.	
	O'Connor, Robert A., "Teletext Field Tests," Consumer Electronics, pp. 304-10.	
	Blank, John, "System and Hardware Considerations of Home Terminals With Telephone Computer Access," Comsumer Electronics, pp. 311-17.	
	Plummer, Robert P. et al., "4004 Futures for Teletext and Videotex in the U.S.," Consumer Electronics, pp. 318-26.	
Marti, B. et al., The Antiope Videotex System," Consumer Electronics, pp. 327-33.		
Frandon, P. et al., "Antiope LSI," Consumer Electronics, pp. 334-38.		
	Crowther, G.O., "Teletext and Viewdata Costs As Applied to the U.S. Market," Consumer Electronics, pp. 339-44.	
	Mothersole, Peter L., "Teletext Signal Generation Equipment and Systems," Consumer Electronics, pp. 345-52.	
Harden, Brian, "Teletext/Viewdata LSI," Consumer Electronics, pp. 353-58.		
	Swanson, E. et al., "An Integrated Serial to Parallel Converter for Teletext Application," Consumer Electronics, pp. 359-61.	
-	Neal, C. Bailey et al., "A Frequency-Domain Interpretation of Echoes and Their Effect on Teletext Data Reception," <u>Consumer-Electronics</u> , pp. 362-77.	
	Goyal, Shri K. et al., "Reception of Teletext Under Multipath Conditions," Consumer Electronics, pp. 378-92.	
	Prosser, Howard F., "Set Top Adapter Considerations for Teletext," Consumer Electronics, pp. 393-99.	
	Suzuki, Tadahiko et al., "Television Receiver Design Aspects for Employing Teletext LSI, Consumer Electronics, pp. 400-05.	

EXAMINER	DATE CONSIDERED		
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08447496 - GAU: 2456

Sheet 18 of 19

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EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.		
	Baer, Ralph H., "Tele-Briefs-A Novel User-Selectable Real Time News Headline Service for Cable TV," Consumer Electronics, pp. 406-08.		
	Sherry, L.A., "Teletext Field Trials in the United Kingdom," Consumer Electronics, pp. 409-23.		
	Clifford, Colin, "A Universal Controller for Text Display Systems," Consumer Electronics, pp. 424-429.		
	Barlow, "The Design of an Automatic Machine Assignment System", <u>Journal of the SMPTE</u> , July 1975, Vol. 84, p. 532-537.		
	Barlow, "The Automation of Large Program Routing Switchers", SMPTE Journal, July 1979, Vol. 88, p. 493-497.		
	Barlow, "The Computer Control of Multiple-Bus Switchers", <u>SMPTE Journal</u> , September 1976, Vol. 85, p. 720-723.		
	Barlow, "The Assurance of Reliability", SMPTE Journal, February 1976, Vol. 85, p. 73-75.		
	Barlow, "Some Features of Computer-Controlled Television Station Switchers", Journal of the SMPTE, March 1972, Vol. 81, p. 179-183.		
	Barlow et al., "A Universal Software for Automatic Switchers", SMPTE Journal, October 1978, Vol. 87, p. 682-683.		
	Butler, "PCM-Multiplexed Audio in a Large Audio Routing Switcher", <u>SMPTE Journal</u> , November 1976, Vol. 85, p. 875-877,.		
·	Dickson et al., "An Automated Network Center", Journal of the SMPTE, July 1975, Vol. 84, p. 529-532.		
	Edmondson et al., "NBC Switching Central", SMPTE Journal, October 1976, Vol. 85, p. 795-805.		
· ~=	Flemming, "NBC Television Central - An Overview", SMPTE Journal, October 1976, Vol. 85, p. 792-795.		
	Horowitz, "CBS" New-Technology Station, WBBM-T", SMPTE Journal, March 1978, Vol. 87, p. 141-146		
	Krochmal et al., "Television Transmission Audio Facilities at NBC New York", <u>SMPTE Journal</u> , October 1976, Vol. 85, p. 814-816.		
	Kubota et al., "The Videomelter", SMPTE Journal, November 1978, Vol. 87, p. 753-754.		
	Mausler, "Video Transmission Video Facilities at NBC New York", SMPTE Journal, October 1976, Vol. 85, p.		

EXAMINER	DATE CONSIDERED	
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08447496 - GAU: 2456

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EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.			
	811-814.			
•	Negri, "Hardware Interface Considerations for a Multi-Channel Television Automation System", <u>SMPTE Journal</u> , November 1976, Vol. 85, p. 869-872.			
	Paganuzzi, "Communication in NBC Television Central", SMPTE Journal, November 1976, Vol. 85, p. 866			
	Roth et al., "Functional Capabilities of a Computer Control System for Television Switching", <u>SMPTE Journal</u> , October 1976, Vol. 85, p. 806-811.			
	Rourke, "Television Studio Design - Signal Routing and Measurement", <u>SMPTE Journal</u> , September 1979, Vol. 88, p. 607-609.			
	Yanney, Sixty-Device Remote-Control System for NBC's Television Central Project", <u>SMPTE Journal</u> , November 1976, Vol. 85, p. 873-877.			
	Young et al., "Developments in Computer-Controlled Television Switches", <u>Journal of the SMPTE</u> , August 1973, Vol. 82, p. 658-661.			
	Young et al., "The Automation of Small Television Stations", <u>Journal of the SMPTE</u> , Oct. 1971, Vol. 80, p. 80 Zborowski, "Automatic Transmission Systems for Television", <u>SMPTE Journal</u> , June 1978, Vol. 87, p. 383-3			
"Landmark forms cable weather news network," EDITOR & PUBLISHER, (August 8, 1981) p. 15.				
	"Broadcast Teletext Specification," published jointly by British Broadcasting Corporation, Independent Broadcasting Authority, British Radio Equipment Manufacturers' Association (September 1976), pp. 1-24.			
"Colormax Cable captioning - 16,000,000 Subs NEED It!," Colormax Electronic Corp. (advertiseme				
	"7609 Sat-A-Dat Decoder/Controller," Group W Satellite Communications (advertisement) 2 pages.			
	"Teletext Timing Chain Circuit (SAA5020)," (August 1978), pp. 109.			
	"Teletext Video Processor (SAA 5030)," Mullard (December 1979), pp. 1-9.			
	"Video Text Decoder Systems (Signetics)", Phillips IC Product Line Summary (May 1981), pp. 15-16.			
	"Teletext Acquisition and Control Circuit (SAA5040 Series)," Mullard (June 1980), pp. 1-16.			
	"Asynchronous Data Transmission System Series 2100 VIDATA, "Wagener Communications, Inc.			

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08447496 - GAU: 2456

Sheet 20 of 19

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EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.		
	(advertisement), 2 pages.		
	"Zenith VIRTEXTTM Vertical Interval Region Text and Graphics," Zenith Radio Corporation (flyer), 7 pages.		
	Anon, "Television Network Automated By Microcomputer-Controlled Channels," Computer Design, Vol. 15, no. 11, (Nov., 1976), pp. 50, 59, 62, 66 and 70.		
	Kinik, et al., "A Network Control System For Television Distribution By Satellite," <u>Journal of The SMPTE</u> , Feb. 1975, vo. 84, no. 2, pp. 63-67.		
	Chiddix, "Videocassette Banks Automate Delayed Satellite Programming," Aug. 1978, TV Comunications, pp. 38-39.		
	Curnal, et al., "Automating Television Operating Centers," Bell Laboratories Record, March, 1978, pp. 65 - 70.		

EXAMINER	/Kevin Bates/	DATE CONSIDERED	03/29/2010
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